U.S. DEPARTMENT OF ENERGY | Legacy Management

Acid/Pueblo Canyon, New Mexico, Site

FACT SHEET

This fact sheet provides information about the Acid/Pueblo Canyon, New Mexico, Site. This site is managed by the U.S. Department of Energy Office of Legacy Management.

Site Description and History

The Acid/Pueblo Canyon, New Mexico, Site is located near the town of Los Alamos, New Mexico, approximately 25 miles northwest of Santa Fe and 60 miles north-northeast of Albuquerque. The site is accessible from Canyon Road, which runs just south of the former waste treatment plant. The plant was situated on a mesa that forms the south rim of Acid Canyon. Acid Canyon is a small tributary near the head of Pueblo Canyon; both canyons are among numerous canyons that cut into the Pajarito Plateau in north-central New Mexico.

From 1943 to 1964, during nuclear weapons research activities at the Los Alamos National Laboratory (LANL, then known as the Los Alamos Scientific Laboratory), untreated and treated liquid wastes from general laboratory, chemistry, and radiochemistry operations were discharged from the main acid sewer line, terminating at the head of the south fork of Acid Canyon. These effluents contained a variety of radioactive materials, including tritium and isotopes of strontium, cesium, uranium, plutonium, and americium.

By 1951, a treatment plant was constructed to remove plutonium and other radioactive material from the waste streams, but only from the original main technical area. Beginning in 1953, a new plutonium research laboratory complex was piping additional radioactive liquid wastes to the treatment plant. If treatment was not required in order to meet release criteria, the raw waste was discharged directly to Acid Canyon. In 1958, liquid wastes from a new radiochemistry facility were added to the treatment plant's load. Wastes were finally redirected to a new Central Waste Treatment Plant in 1964, and the last releases to Acid Canyon occurred through June 1964.

The U.S. Atomic Energy Commission (AEC) began decontamination and decommissioning the treatment plant in late 1966. Both the plant and its associated vehicle decontamination facility were demolished. The contaminated building materials, sewer pipe, and soil were disposed of at the LANL radioactive waste

Location of the Acid/Pueblo Canyon, New Mexico, Site

disposal areas. Portions of the Acid Canyon cliff face were also decontaminated, and some contaminated rock, soil, and sediment were removed from the canyon floor. Decontamination work in Acid Canyon continued into June 1967, when the treatment plant site and Acid Canyon were deemed sufficiently free of contamination to be released from AEC control without restriction. The property was then transferred to Los Alamos County.

LANL conducted a survey of the site in 1976–77 as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). This survey identified two areas where contamination exceeded criteria for radionuclide concentrations in soil: the former untreated waste effluent outfall and the former vehicle decontamination facility. A backhoe was used for the bulk of the excavation, and hot spots at the former vehicle decontamination facility were excavated manually. A total of 390 cubic yards of contaminated soil and

rock were excavated from these two areas of the site and disposed of at the LANL Radioactive Waste Disposal Area G. The final excavation was performed on September 30, 1984.

Regulatory Setting

AEC, a predecessor agency to the U.S. Department of Energy (DOE), established FUSRAP in March 1974 to evaluate radioactive contamination at sites where work was performed to develop the nation's nuclear weapons and early atomic energy program. After reviewing records and radiometric surveys for more than 600 sites connected with the nuclear weapons program, DOE identified 46 sites that required cleanup, including the Acid/Pueblo Canyon Site. Congress transferred responsibility for FUSRAP site characterization and remediation to the U.S. Army Corps of Engineers in 1997. DOE retains responsibility for long-term surveillance and maintenance of remediated FUSRAP sites.

The Acid/Pueblo Canyon Site was remediated to criteria in *Interim Soil Limits for D&D Projects*, LA-UR-79-1865-Rev. (pre-FUSRAP standards). A notice of cleanup certification for the site was published in the *Federal Register* on October 29, 1984.

In fiscal year 2004, DOE transferred responsibility for the Acid/Pueblo Canyon Site from the DOE Office of Environmental Management to the DOE Office of Legacy Management.

Current Site Conditions

Post-remedial action survey data indicated that the radiological condition of the Acid/Pueblo Canyon Site is in compliance with applicable DOE standards and guidelines for cleanup of residual radioactive contamination and radiological conditions are protective of health, safety, and the environment. An independent verification survey conducted after the completion of remedial action detected no residual radioactivity at the site that exceeded current guidelines. Therefore, DOE released the site for unrestricted use. The site was restored to a condition acceptable to the owner.

Subsequent surveys conducted after storm events found that flooding and erosion exposed minor unaccessed radioactive contamination. LANL has remediated the additional contamination in consultation with the New Mexico Environment Department and local stakeholders.

Legacy Management Activities

No monitoring, maintenance, or site inspections are required for the Acid/Pueblo Canyon Site. DOE Legacy Management responsibilities consist of managing site records and responding to stakeholder inquiries. LANL conducts ongoing surveillance and monitoring at the site.

Contacts

Documents related to the Acid/Pueblo Canyon Site are available on the DOE Legacy Management website at http://www.lm.doe.gov/Acid/Sites.aspx.

For more information about DOE Legacy Management activities at the Acid/Pueblo Canyon Site, contact

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